REMARKS

In the Office Action, dated April 24, 2003, the Examiner states that Claims 1-15 are pending, Claims 1-7 and 12-15 are rejected, and Claims 8-11 are objected to. By the present Amendment, Applicant amends the specification, the claims, and the drawings.

DRAWINGS

In the Office Action, Figure 1 is objected to for not being labeled as prior art. The Applicant herewith submits amended drawing figures in which Figure 1 is labeled "Prior Art". No other amendments to the drawings have been made. No new matter has added.

SPECIFICATION

In the Office Action, the term "pressure-free reservoir" is objected to. Applicant has amended this term as suggested by the Examiner to read as --reservoir under atmospheric pressure--.

CLAIM OBJECTIONS

In the Office Action, Claims 8-11 are objected to for being improper multiple dependent claims. Applicant has amended those claims to remove the multiple dependencies.

CLAIM REJECTIONS

In the Office Action the claims are rejected for being indefinite as to "A tapping circuit" in Claim 1, and "a replenishing valve" in Claim 15. Applicant has amended those claims to remove the indefiniteness.

In the Office Action, Claims 1-7 and 15 are rejected under 35 U.S.C. §102(b) as anticipated by, or alternatively under 35 U.S.C. §103(a) as obvious over, Cochran et al. (US 4,332,134). The Applicant respectfully disagrees with and traverses this rejection in view of the amended claims.

Cochran et al. shows a single tapping and removal valve (34) connected to the low pressure loop. In other words, the main pipe to which the tapping and removal valve is connected is the main pipe that constitutes the discharge pipe in the preferred operating direction of the motor 24. However, Cochran et al. does not

disclose or suggest the cross-sectional area of a passageway of the valve between the tapping pipe and the removal pipe to vary continuously as a function of the pressure difference between these pipes.

As shown in Figures 3 to 5 of Cochran et al. the cylindrical bore 68 that forms a passageway between the tapping pipe 62 and the removal pipe 65 is either open as shown in Figure 3 or closed as shown in Figures 4 and 5, either by the spool 66 or by the poppet 50. The spool and the poppet are displaced due to pressure differences between the loop 62, the drain line 65 and the charging line 60, but the bore 68 has no variable cross-section.

As stated on page 4, lines 23 to 34 of the present patent application, the variable cross-sectional area of the communication passageway enables the flow rate of tapped fluid to be adapted to suit the operating conditions of the motor. The effect of this adaptation is shown, for example, on Figure 4B. This feature is provided in amended Claim 1.

The valve 49 of Cochran et al does not provide for such a regulated flow rate. Therefore, the Applicant considers that amended Claim 1 overcomes the rejection with respect to Cochran et al. Additionally, the flow rate regulator defined in more detail in Claims 3 and 4 of the present patent application is not in any way anticipated by Cochran et al.

In the Office Action, Claims 1-5 and 15 are rejected under 35 U.S.C. §102(e) as anticipated by Takada et al. (US 6,508,059). The Applicant respectfully disagrees with and traverses this rejection in view of the amended claims.

Takada et al. discloses a single tapping and removal valve (101, 102) connected to the main duct 94 at low pressure. However, as shown on Figure 7, valve 101 is not a progressive valve and, as soon as it is opened, it has only one cross-section. This cross-section is that of constriction 116. This constriction has such a small diameter that the valve is either open when the constriction communicates with drain hole 118 or closed, when it does not. There is no intermediate position where the passage formed by the constriction is partly opened. Therefore, the Applicant considers that amended Claim 1 overcomes the rejection with respect to Takada et al.

In the Office Action, Claims 1, 2 and 6 are rejected under 35 U.S.C. §102(b) as anticipated by Komura (US 5,356,347). The Applicant respectfully disagrees with and traverses the rejection in view of the amended claims.

As stated in the description of Komura et al. (column 8, lines 25 to 30), the valve of Figure 11 is disposed between each of the oil supply passages 39 and the oil tank. This is contrary to original Claim 1, where the tapping and removal valve is connected to a single one of the main pipes. It is not clear from the description of Komura whether the case of a tapping valve connected to a single one of the main pipes is foreseen. The Examiner might have derived this from column 2, lines 48 to 54, although this is not clear. However, if the valve is connected to a single one of the main pipes, then this pipe would have to be the feed pipe, at high pressure, because Komura seeks to prevent excessive oil pressure (which can only be the feeding pipe) when the transmission starts to operate (see column 2, lines 14 to 21). In any case, the tapping valve of Komura does not have a variable cross-section, so that amended Claim 1 is clearly not anticipated by Komura.

In the Office Action, Claims 1 and 12 are rejected under 35 U.S.C. §102(e) as anticipated by Meier (US 6,430,923). The Applicant respectfully disagrees with and traverses the rejection in view of the amended claims.

Meier clearly refers to the valve 42 as having a single opened cross-section (fixed orifice 52 referred to in column 5, line 37). The claimed feature of the variable cross-section is not disclosed. Therefore, this rejection is considered overcome.

In the Office Action, dependent Claims 12 and 13 are rejected under 35 U.S.C. §103 as unpatentable over Cochran et al. in view of Meier. The Applicant respectfully disagrees with and traverses this rejection in view of the arguments presented above with respect to these references.

In light of the foregoing response, all the outstanding objections and rejections have been overcome. Applicant respectfully submits that this application should now be in better condition for allowance and respectfully requests favorable consideration.

Respectfully submitted,

July 18, 2003
Date

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